

Laura H. Lacritz, Ph.D., ABPP
Associate Director

Department of Psychiatry
Neuropsychology

NEUROPSYCHOLOGICAL EVALUATION

Patient Name:	Steven Long	Date of Evaluation:	8/1 & 8/8/06
Date of Birth:	08/17/1971	Handedness:	Left
Referral:	Paul Johnson, JD	Education:	4 years

Relevant History and Reason for Referral

Mr. Long is a 34-year-old Caucasian male currently awaiting trial on capital murder charges. He was referred for independent neuropsychological evaluation to assess his current cognitive functioning and was evaluated at Lew Sterret Criminal Justice Center. Cognitively, Mr. Long reported longstanding difficulties with problem solving, decision-making, impulsivity, and attention. He stated he has always had difficulty finishing things, sitting still for long periods of time, and focusing. He has apparently been diagnosed with attention deficit disorder in the past and treated with Cylert and Ritalin previously. Medical history includes tonsillectomy and asthma. He described two incidences of possible head injuries. One occurred when hit in the head with a bat. He does not recall if there was any loss of consciousness secondary to being intoxicated at the time. In 2000 or 2001 he was hit with a bar weight on the back of his head that involved a brief loss of consciousness. He recalls headaches afterwards that started behind his eyes. While he stated that he has always had a short fuse, since that event he believes he gets mad faster. Current medications include Prozac, Cogentin, Zyprexa, and Trazadone. He has also taken Risperdal in the past.

Mr. Long reported that he grew up in a "dysfunctional family" that included a lot of depression. He stated that his mother worked most of the time and that he was largely raised by a sister and brother-in-law who brought drugs into the house at an early age. He stated that he did fairly well in school until the 4th grade when drugs were introduced into the home. Early problems with writing were reported, but no reading difficulties. Mr. Long was reportedly expelled from school in the 5th grade secondary to poor grades, drug use, and non-participation. He began experimenting with drugs at age 10, initially using mostly marijuana and then later Quaaludes, cocaine, PCP, crack, and methamphetamines. He also drank alcohol excessively including a 12 pack of beer per day along with several ounces of whiskey. He stated he was high most of the time prior to entering prison. He has worked for short periods of time in various positions including at a car wash, refrigeration company, sheet metal company, and helping his mother. He stated that he tended to lose jobs because he could not get along with people and would fly off the handle.

Mr. Long stated he has been diagnosed with several different psychiatric disorders in the past including attention deficit disorder and schizophrenia, and apparently received treatment at MHMR. In addition, he clearly has a history of polysubstance abuse. He stated he has always

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had a short fuse and though he tries to control it, will often "go off" with people who do not like him. He described his current mood as "pretty good," though described paranoia and concerns that people want to kill him. He has made two suicide attempts while in prison, one via hanging (found by a guard) and one by cutting his wrists. Neither of these required significant medical attention. He also reported feelings of failure and prior auditory hallucinations (poorly described), controlled by medications. He continues to have suicidal ideation. Mr. Long has been separated from his wife since before his incarceration. The marriage lasted less than a year before separation. He has two children, ages 13 and 12, with whom he has had little contact over the past year. His records apparently indicate prior intellectual testing that yielded an IQ score of 97. However, those records were not available at the time of this evaluation and no further details were available.

Behavioral Observations

Mr. Long was tested over two testing sessions using one of the visitation cubicles. During the first session, he was cooperative and inquisitive about the procedures. He asked some inappropriate questions of the examiner including multiple personal inquiries. During the second testing session he was more irritable, stating he had previously been sleeping and did not sleep well the night before. He was generally cooperative, though frustrated by difficult tasks. He was administered 3 tests of motivation and effort, one during the first testing session and two during the second testing session. He performed below acceptable cut-off scores on all of these measures, suggesting possible suboptimal effort. Therefore, while he appeared to fully engage in the testing, aspects of these results likely represent an underestimate of his functioning and caution should be used in interpreting the following results.

Tests Administered

Wechsler Adult Intelligence Scale-III (WAIS-III), Wide Range Achievement Test-3 (WRAT-3; Reading subtest), Wisconsin Card Sorting Test (WCST), Trail Making Test (TMT), Halstead Category Test, Verbal Fluency Measures, Clock Drawings, Digit Vigilance Test, Stroop Color & Word, Hopkins Verbal Learning Test-Revised, Rey-Osterrieth Complex Figure, Test of Memory Malinger, Rey 15-Item Test, Abbreviated Hiscock Forced Choice Procedure

Results

Mr. Long demonstrated extremely low intellectual abilities, obtaining a Verbal IQ of 66 and a Performance IQ of 64, for a Full Scale IQ of 62 (1st percentile). He demonstrated some inter-subtest scatter, though the majority of his scores fell in the borderline range and were consistent with single word reading skills at the 1st percentile (3.8 grade reading level). These scores are below previously reported IQ levels in the average range, though he does not present as higher functioning than the borderline or perhaps low average range.

Problem solving and concept formation on a card sorting test were moderately impaired (2/6 categories completed), as he was able to generate appropriate strategies, but lost track of his sorting principle on multiple occasions, suggesting that attention may have negatively impacted his performance on this test. Performance on a more difficult test of abstraction and problem solving was mildly impaired and he demonstrated significant frustration throughout the task. Visual-motor processing speed on a digit symbol substitution task was mildly to moderately

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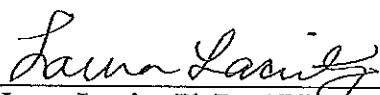
impaired. Processing speed on a visual scanning and sequencing task was also mildly to moderately impaired, and he had moderate difficulty when mental set shifting was additionally required, making multiple errors. This test was re-administered on the 2nd testing session, on which he performed better on the numerical sequencing segment but worse on the letter number sequencing part, making more errors and requiring the test to be discontinued.

Expressive vocabulary skills were moderately impaired (2nd percentile). Verbal fluency was mildly impaired for letters and moderately impaired for categories. His drawing of a clock face was micrographic, but generally symmetrical, though he incorrectly set the clock hands. His performance improved when given a model to copy and he was able to accurately set the hands to a designated time. He had mild difficulty in copying a complex geometric figure, utilizing a disorganized approach, which resulted in some misalignment of design details. Performance on visuospatial subtests from the WAIS III generally fell in the mildly impaired range, including scores on tests involving block construction and visual pattern analysis. He had more difficulty identifying missing details in pictures (<1st percentile). Attention to simple auditory information was mildly impaired (repetition of 5 digits forward and 3 in reverse). Sustained attention on a number cancellation task was mildly impaired for time, but average for accuracy. Performance on a test of selective attention and response inhibition was low average on the interference trial, though he made a number of errors.

Overall learning on a 12-item list-learning test was moderately to severely impaired, as he learned only a maximum of 6 items across trials and recalled 2 items after a delay. In addition, he made multiple intrusion errors. Recall of a complex geometric figure was mildly to moderately impaired immediately and severely impaired after a delay, with an intricate intrusion as part of the recall.

Summary and Recommendations

Mr. Long demonstrated extremely low intellectual abilities and impairments across neurocognitive domains including on tests of problem solving, abstraction, processing speed, mental flexibility, language functioning, attention, and memory. However, he performed sub-optimally on tests of motivation and effort and some variability was noted across testing sessions. Therefore, while he seemed to put forth good effort on most tests, certain performances may reflect an underestimate of his true abilities. He likely has at least mild generalized neurocognitive deficits, which are probably longstanding, and may have been compounded by the effects of polysubstance abuse and psychiatric difficulties. He reports a history of attention deficit disorder and while he described early attention problems, there was insufficient information to confirm this diagnosis. His prior mild head injuries are not likely contributing to his presentation.



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